

CLAIMS:

1. A system comprising two endpoints (1, 2) communicating with each other by means of a packet-switched network, said endpoints (1, 2) using adaptation algorithms for estimating jitter from packet arrival times and for modifying silence period lengths according to the latest estimate, wherein said endpoints (1, 2) are able to measure a response time ( $\rho$ ) at a certain point of time and use it as a parameter in the adaptation algorithms.

2. The system according to claim 1, wherein the adaptation algorithms verify that for certain adaptation points a playout ( $p$ ) of a packet can be expressed as  $p=r+B$ , where  $r$  is a packet reception time and  $B$  is a buffer delay chosen by the algorithms, and that for other packets the playout is synchronized with the previous packet playout.

3. The system according to claim 1, wherein said endpoints (1, 2) can use different ones of said adaptation algorithms.

4. A method for measuring a response time ( $\rho$ ) between two endpoints in a packet-switched network system, comprising the steps of:

sending (S1) a response time request packet from a first endpoint (1) to a second endpoint (2) at a time  $s_r$ ;

receiving (S2) the response time request packet at said second endpoint (2) at a time  $r_r$ ;

sending (S4) a response time indication packet from said second endpoint (2) to said first endpoint (1) at a time  $s_i$ ;

- 20 -

receiving (S5) the response time indication packet at said first endpoint (1) at a time  $r_i$ ; and

computing (S6) the response time ( $\rho$ ) on the basis of the sending and receiving times in said first endpoint (1).

5. The method according to claim 4, wherein the response time request packet sent from said first endpoint (1) includes information identifying one of the packets which has been sent at a time  $s'$  by said second endpoint (2) and received at a time  $r'$  by said first endpoint (1) since its latest adaptation, and wherein the response time indication packet sent from said second endpoint (2) includes information identifying one of the packets which has been sent at a time  $s$  by said first endpoint (1) and received at a time  $r$  by said second endpoint (2) since its latest adaptation.

6. The method according to claim 5, wherein  $s'-s_i$  is computed in said second endpoint (2) (S3) and the result is indicated in the response time indication packet.

7. The method according to claim 6, wherein in said calculating step the response time ( $\rho$ ) is calculated according to the following expression:

$$\rho = (r-r_r) + (s-s_r) - (r'-r_i) + (s'-s_i) + (T_r+T_i) + D_e+D_p+D'_e+D'_p$$

wherein

$D_e$  and  $D'_e$  are encoding delays of the first and second endpoints, respectively,

$D'_p$  and  $D_p$  are adaptation playout delays of the first and second endpoints, respectively, and

$$T_r = r_r - s_r \quad \text{and} \quad T_i = r_i - s_i, \quad \text{and}$$

the quantities of  $D_E$ ,  $D'_P$ ,  $T_r+T_i$ ,  $r'-r_i$  and  $s-s_r$  are known

5 quantities of  $D'_E$ ,  $D_F$ ,  $r-r_i$  and  $s'-s_i$  are indicated in the response time indication packet.

response time indication packet.